



Kentucky's digital-and future-ready students and teachers

We are headed toward greater and more meaningful digital interactions between family, school and community. We believe digital-and future-ready foundations can:

- help empower student personalized learning experiences and preparedness for college and workforce
- increase teacher productivity and digital workflows
- enhance communications and invaluable collaboration models
- expand data enhanced decision making
- and, provide a robust infrastructure for endless possibilities.



525,687

Student Instructional Devices

100% of schools provide Wi-Fi access to students



Of these, 95% (+13%) schools have implemented dense Wi-Fi networks capable of supporting BYOD or 1:1 initiatives

100-150kbps

Bandwidth per student available through statewide fiber network service

Access

Digital access at school and at home helps us understand how "plugged in" and "connected" our learners are during the school day and beyond. Students without access to technology in school and at home are less likely to engage in 21st century learning skills. Ease of access is a precursor to the desired shifts in student outcomes powered by digital tools and resources. Strategies such as 1:1 and Bring Your Own Device (BYOD) are being adopted across Kentucky to help meet this need.

Kentucky's Educational Network (KEN) - school fiber Internet total usage increased

+140%

in the past 24 months. While maintaining uptime of

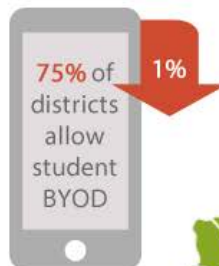
99.9688%



74%^{+14%} of students have a smartphone. 11% of which are shared.



83% - 90% of students have Internet access at home; 89% of whom have wireless Internet access (78% broadband, 11% cellular).



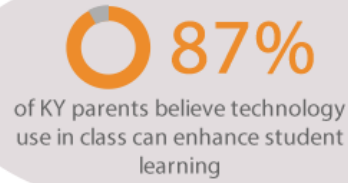
- 63 Districts with BYOD only - 36% (75% total)
- 19 Districts with 1:1 only - 11% (50% total)
- 68 Districts with both BYOD and 1:1 - 39%
- 25 Districts without BYOD or 1:1 - 14%

Future-Ready Student

Strong online skills, such as confidence using shared digital workspaces, have been correlated with increased collaboration in the classroom.

Students can think about concepts and interactions in more varied ways with the affordances of multimedia and multimodal representations.

Students who have access to computers and the Internet are more likely to use technology more frequently and have better technology skills.



These skills are a precursor to the use of digital creativity, digital collaboration, digital communication and critical thinking in the classroom and while learning.

Students can also personalize the use of their technology and leverage greater access to engage in anytime, anywhere learning on topics of their choice.



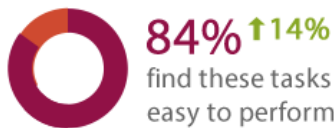
MULTIMEDIA SKILLS

Student reported ease of editing a photo



Only 9% reported never doing so

Student-reported ease of recording and editing video



Only 10% said the task was impossible

Student-reported frequency of playing a game on a computer or phone



Only 4% reported never doing so

FOUNDATIONAL SKILLS

Student-reported ease of sending an email



Only 5% said the task was impossible (+1%)

COLLABORATION & ONLINE SKILLS

Student-reported ease of collaborating using online documents

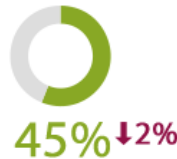


7% said the task was impossible

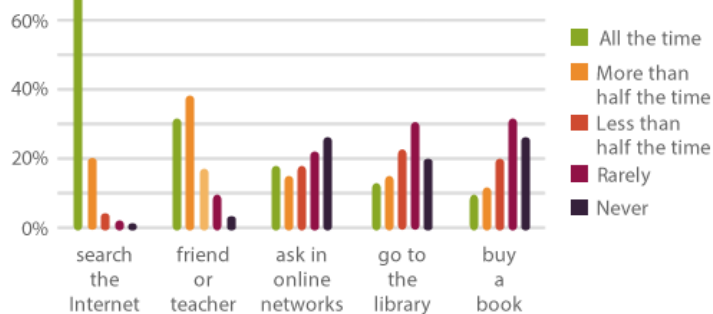
Student-reported frequency of reading online content



15% said never



Student reported research methods

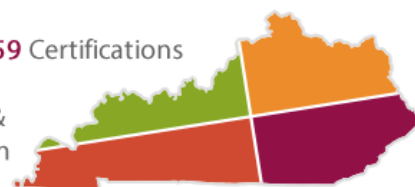


23,359 Certifications

84% High School & ATC Participation

59% Certification Pass Rate

29% Greater than National Average



< KY IT ACADEMY />

21st-Century Teacher

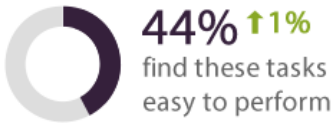
KY is cited as a top 3 state in teachers accessing and using quality data to raise achievement for all students (Data Quality Campaign)



Teachers with strong foundational skills are able to handle administrative classroom tasks easily, including attendance and grading. Further, teachers who are confident in their ability to use foundational skills are often able to use these skills when learning new online and multimedia skills.

MULTIMEDIA SKILLS

Ability to manipulate photos and record and edit audio or video



40% expressed interest in Professional Development (PD) in this area (-8%)

ONLINE SKILLS

Essential skills for contributing to and collaborating on the Internet



45% expressed interest in PD in this area (+30%)

FOUNDATIONAL SKILLS

Basic computing skills - sending email and creating spreadsheets



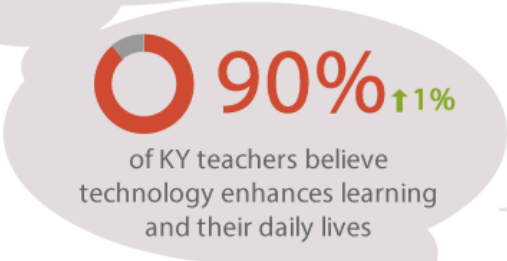
15% expressed interest in PD in this area (-1%)

4 of 5 teachers report having sufficient access to instructional technology...



yet less than 2 in 5 have access to an integration specialist or learning coach.

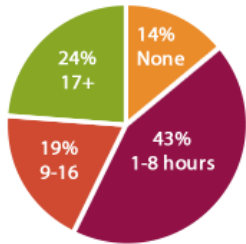
90% of these are encouraged to use technology and learning by school leaders



CONFIDENCE WITH TECHNOLOGY

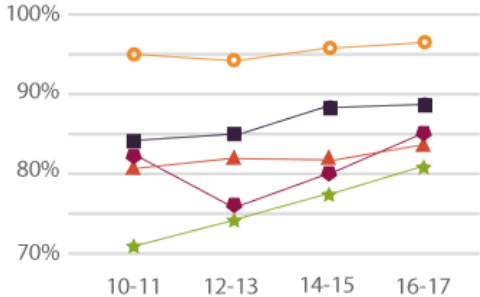


Teacher-reported hours spent per year participating in school-sponsored technology related PD



78% of these teachers say the quality is average or above average

Kentucky Teaching, Empowering, Leading and Learning (TELL) Survey Results
Positive Responses



Most requested education technology PD topics



Tech Trends

ONLINE & VIRTUAL LEARNING

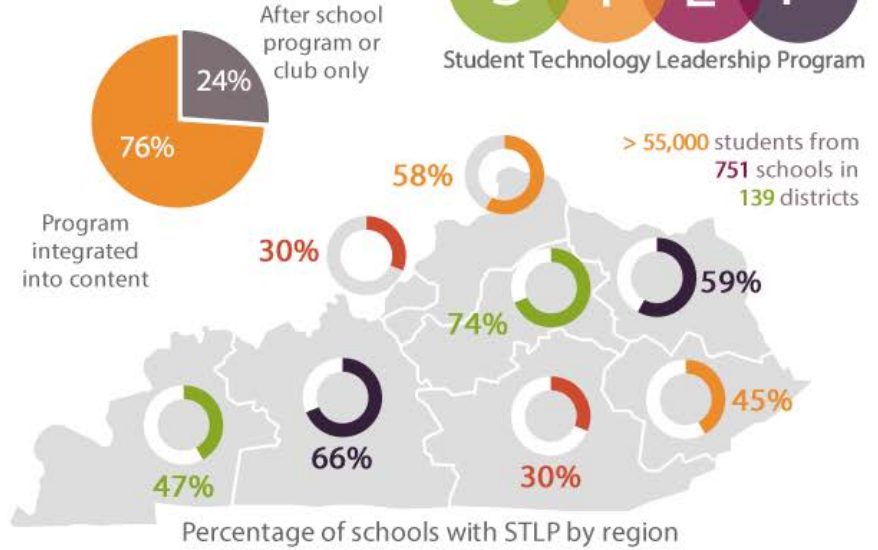
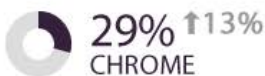


Students grade 6-12 taking at least one online course are up **29%**. Of these, **45%** are girls, **55%** boys.

LEARNING MANAGEMENT SYSTEM



The majority of adoption is with free cloud services. However, there is an upward trend toward paying for a solution.

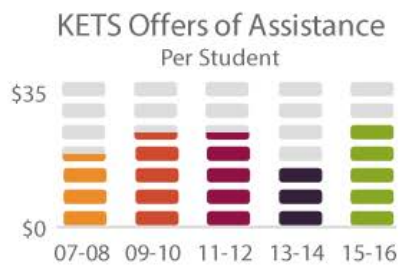


94% of districts are using Google Apps for Education. Of these, **79%** have integrated with Office 365 & Active Directory



More than **2 Billion** unauthorized connection attempts against school networks were blocked by statewide security services since the start of the school year.

20 large-scale organized network attacks aimed at denying Internet access to all Kentucky schools and districts were successfully mitigated.



*For our 2017 infographic, we've presented subscript indicators for year-over-year changes to data where applicable. GREEN indicates favorable changes, RED unfavorable, and GRAY neutral.



Sources

- Kentucky Digital Readiness Report: http://applications.education.ky.gov/trs_reports/
- TELL Kentucky: <http://www.tellkentucky.org/results/25>
- BrightBytes: <http://brightbytes.net>
- Digital Driver's License (DDL): <http://iDriveDigital.com>
- Google Analytics
- Open House: <http://openhouse.education.ky.gov>

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